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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/547,688

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Kenny Chang

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WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP  
TEN POST OFFICE SQUARE  
BOSTON, MA 02109

EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1794

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/547,688	<b>Applicant(s)</b> CHANG, KENNY	
	<b>Examiner</b> Andrew T. Piziali	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 23-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 23-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/2/05 &amp; 4/2/07</u> .                                     | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The use of the trademark INCONEL has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not mention the wire mesh having an open area of about 20% to about 80%. The specification does not mention the wire mesh having a thickness of about 1 mm. The specification does not mention the metallic material being a refractory material.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 5-7, 9, 10, 27-29, 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claims 5 and 27, the trademark INCONEL is present in the claims as a limitation to identify or describe a particular material or product. Therefore, the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. See MPEP 2173.05(u).

Regarding claims 6 and 28, the phrase “about 20% to about 80%” renders the claims indefinite because there is close prior art and there is nothing in the specification, prosecution history, or the prior art to provide any indication as to what range is covered by the term “about.”

Regarding claims 7 and 29, the phrase “an effective thickness of about 1 to about 6 mm” renders the claims indefinite because there is close prior art and there is nothing in the specification, prosecution history, or the prior art to provide any indication as to what range is covered by the term “about.”

Regarding claims 9 and 31, the phrase “an effective thickness of about twice the diameter of the wire constituting the wire mesh” renders the claims indefinite because there is close prior art and there is nothing in the specification, prosecution history, or the prior art to provide any indication as to what range is covered by the term “about.”

Regarding claims 10 and 32, the phrase “up to about 1400°C” renders the claims indefinite because there is close prior art and there is nothing in the specification, prosecution history, or the prior art to provide any indication as to what range is covered by the term “about.”

***Claim Rejections - 35 USC § 102/103***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10 and 23-32 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 3,958,840 to Hickox.

Hickox discloses an annular shim member having first and second opposing surfaces and a plurality of openings formed therethrough, wherein the member is made from a metallic material (see entire document including column 1, lines 52-68). The shim appears to inherently at least partially define a plurality of radially extending gas flow paths from communicating a radially interior side of the member with a radially exterior side of the member.

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The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 2, 4, 5, 24, 26 and 27, the bare metallic material is a refractory metal such as steel (column 1, lines 52-68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the member from any suitable refractory metallic material, such as stainless steel, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 3 and 25, the metallic material is a wire mesh (column 1, lines 52-68).

Regarding claims 6 and 28, the wire mesh has an open area of between 20 and 80% (see Figure 3).

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Regarding claims 7 and 29, Hickox does not appear to mention a specific thickness range, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness, such as from about 1 mm to about 6 mm, because it is understood by one of ordinary skill in the art that the layer thicknesses determine properties such as flexibility and weight and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 8 and 30, Hickox does not appear to mention preshaping the wires, but absent a showing to the contrary, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

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Regarding claims 9 and 31, considering that the member is may comprise a weave of interlocking strands (column 1, lines 52-56), it appears to inherently possess the claimed characteristic.

Regarding claims 10 and 32, considering that the member is substantially identical to the claimed member in structure and materials, it appears to be inherently capable of withstanding temperatures of up to about 1400C.

***Claim Rejections - 35 USC § 103***

8. Claims 4, 5, 7, 26, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,958,840 to Hickox as applied to claims 1-10 and 23-32 above, and further in view of USPN 4,304,178 to Haberle.

Regarding claims 4, 5, 26 and 27, Hickox does not appear to specifically mention the use of stainless steel, but Haberle discloses that it is known in the art to use stainless steel (see entire document including column 3, lines 54-58 and column 5, lines 10-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the steel member from any suitable steel material, such as stainless steel, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.



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Regarding claims 7 and 29, Hickox does not appear to specifically mention a member thickness, therefore, it would have been necessary and thus obvious to look to the prior art for conventional thicknesses. Haberle provides this conventional teaching showing that it is known in the art to use a thickness of about 5 mm (column 5, lines 10-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the member with a thickness of about 5 mm, motivated by the expectation of successfully practicing the invention of Hickox.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/

Primary Examiner, Art Unit 1794